



## CORRIDOR IMPROVEMENT AUTHORITY AGENDA

CITY OF NOVI

**May 13, 2025 | 5:30 PM**

Mayor's Conference Room

Novi Special Conference Room | 45175 Ten Mile Road  
(248) 347-0460

### CALL TO ORDER

**ROLL CALL** - Mayor Justin Fischer, Councilmember David Staudt, Blair Bowman, Katie Chuba, Hugh Crawford, John O'Brien, Matthew Thibaudeau, Patrick Torossian, & Jeffrey Wainwright

### APPROVAL OF AGENDA

### APPROVAL OF MINUTES

### PURPOSE OF THE MEETING

[Main](#) Street Lighting SAD Process

[Updated](#) Financials/Revenue Capture/Loan Repayment

[Public](#) Transit/Bus Stop Options

Future Development

Set Date for June Meeting

### PUBLIC COMMENT

### ADJOURNMENT

**NOTICE:** *People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk (248) 347-0456 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.*



CITY OF NOVI  
Corridor Improvement Authority Meeting  
**October 30, 2024, 5:30 p.m.**  
Novi Special Conference Room | Novi Civic Center | 45175 Ten Mile Road  
(248) 347-0445

**CALL TO ORDER:** 5:30 p.m.

**ROLL CALL:** Mayor Justin Fischer, Councilmember David Staudt, Blair Bowman, John O'Brien, Jeffrey Wainwright, Katie Chuba, & Matthew Thibaudeau

**PRESENT:** Mayor Justin Fischer, Councilmember David Staudt, John O'Brien, Jeffrey Wainwright, Katie Chuba, & Matthew Thibaudeau

**LATE ARRIVAL:** Blair Bowman (Arrived following roll call and approval of agenda)

**STAFF LIAISON:** Victor Cardenas, City Manager

**ALSO PRESENT:** Charles Boulard, Director of Community Development  
Dan Commer, Planner  
Katherine Oppermann, Recording Secretary

**APPROVAL OF AGENDA**

Motion: Wainwright; Seconded: O'Brien; Approved 6:0

**PURPOSE OF THE MEETING**

Mayor Fischer welcomed everyone present, it has been some time since the Corridor Improvement Authority (CIA) last met. He requested that City Manager Cardenas give some background. Mr. Cardenas explained that the CIA formed a few years prior and that it acts much like a Downtown Development Authority (DDA) by capturing revenue along a specific area – in our case Grand River Avenue from Haggerty to Wixom Rd. Initially in 2020 the board decided to fund the ring road construction activity. The CIA has since been inactive since the cost of that project has been eating the captured revenue for some time. The total cost will be paid off in 2028.

**1. Main Street Lighting**

Community Development Director, Charles Boulard, stated that the responsibility for street lighting is based on frontage and historically they are not consistently all on. As the area in question falls under the CIA jurisdiction, Mr. Cardenas is recommending that their budget is utilized for the project rather than City budget.

Mr. Bowman asked who would perform the streetlights to which Mr. Cardenas responded that they would be installed by DTE. Councilmember Staudt asked if the new lights would be LED and Mr. Cardenas confirmed that yes, they would. Mayor Fischer confirmed that the City would be responsible for the lights and what the course of

action would be should the CIA decide not to take on the burden of the cost. Mr. Cardenas stated that we would examine the City funds to determine where there might be room for accommodation in the budget, potentially the Road Fund. Estimates for tax revenue from the existing, currently under construction, as well as planned unconstructed units in the area were also briefly discussed. Mr. Cardenas noted that the new units would drive significant tax revenue to the CIA funds.

Councilmember Staudt asked if there are any ADA issues with the construction of the sidewalks on the new Mainstreet development, especially regarding the old trees and planters. He noted that, with the new construction, we're looking to fix the area and that the layout, as it currently exists, is not walkable. Mr. Boulard confirmed that the sidewalks in front of the Pulte development, when completed, will meet all necessary standards (including ADA).

Councilmember Staudt also requested that City Attorney Tom Schultz confirm the exact streetlight responsibilities, and history in a written explanation. He noted that, if we're looking to improve the area there is a lot that can be done.

Mr. Bowman asked if the cost, 32 million, was just the lights and DTE work. Mr. Cardenas confirmed that, yes, the cost covers the poles, lights, and installation work.

Mayor Fischer asked if there were any more questions on the topic and, seeing none, said he would entertain a motion regarding the Mainstreet lighting. He added that he did not want official action until the requested information regarding streetlight responsibility and history from the City Attorney.

*Motion to approve adding the Mainstreet Light to the Corridor Improvement Authority Budget, pending confirmation of history and ownership from the City Attorney, for 2025.*

*Motion Maker: Bowman; Seconded: Wainwright; Approved 7:0*

## 2. Review and Approval of Corridor Improvement Authority Budget

Mr. Cardenas asked for confirmation of the budget, expenses, and the remaining payback period.

Councilmember Staudt asked if the board should start considering other projects under the CIA. Mayor Fischer agreed that he liked that approach and thinks the board should have a meeting in Q1 of 2025 to consider projects. Now that revenues for the CIA are forecasted to be up it is worth meeting more to consider those future projects. When the CIA started, they couldn't foresee many of the projects coming to fruition now. Mr. Bowman noted that in the future there could be other projects, like Sakura, who need assistance. Councilmember Staudt said that he wants to see where the money is coming from clearly. He thinks that the current estimate is unaggressive and that it would help the group to understand the future of developments in the area. Mr. Boulard asked for clarification if, in Q1, the interest would be in linking with the Council goal of

supporting growth in the Town Center, Mainstreet, etc. Mayor Fischer said yes, it would tie into that goal. Mr. Bowman also stated that there is huge opportunity in City West.

Mr. Cardenas went over the chart of taxable value produced. Mr. Bowman opined that with The Bond alone it could exceed the current taxable interest. He agrees with Councilmember Staudt's point that there will be considerably more.

Mr. Cardenas stated that he will get the confirmation from City Attorney Schultz regarding lighting as previously discussed and will also have City staff look at Capital Improvement Projects that could be considered at a future meeting.

Mayor Fischer requested a motion on the budget.

*Motion to approve the Corridor Improvement Authority Budget, as presented, for 2025.*

*Motion Maker : Thibaudeau; Seconded: Wainwright; Approved 7:0*

Mayor Fischer requested that Ms. Oppermann schedule the next CIA meeting for Q1 and that the agenda should include the revenue piece of the matter as well as the Capital Improvement Project discussion.

**PUBLIC COMMENT** – none

**ADJOURNMENT:** 6:05 p.m.

Motion: Bowman; Seconded: Wainwright; Approved 7:0



**TO:** VICTOR CARDENAS, CITY MANAGER  
**FROM:** DANIELLE MAHONEY, ASSISTANT CITY MANAGER  
**SUBJECT:** OVERVIEW OF THE SPECIAL ASSESSMENT DISTRICT PROCESS  
**DATE:** FEBRUARY 8, 2025

## MEMORANDUM

Mayor and Council –  
Before the holidays the Grand River Corridor Improvement Authority (CIA) met regarding new streetlights along Main St. From the meeting, staff was directed to identify how property owners could be assessed for these improvements that **they** are responsible for. Prior to sending this out to the CIA, we wanted to share with you as Council would be very involved in the creation of a new SAD.

- Victor

The Special Assessment District (SAD) Process is a critical tool for funding public improvements that directly benefit specific properties within a defined district. For the Novi Corridor Improvement Authority (CIA), this process offers a mechanism to achieve shared community goals, such as infrastructure upgrades, streetscape enhancements, and other projects that promote economic development and improve the quality of life for residents and businesses.

Below is an overview of the process and its five key resolutions, followed by a broader narrative on its importance and a short history of special assessments in Novi.

### Steps and Resolutions

1. **Preparation of Plans, Specifications, and Costs (Resolution #1)**
  - o The City Council directs the City Manager to prepare detailed plans, cost estimates, and descriptions of the proposed assessment district.
  - o This information helps the council determine the project's necessity, estimated costs, and the proportion to be covered by special assessments versus city funds.
2. **Tentative Determination of Necessity (Resolution #2)**
  - o The council reviews the plans and determines whether the improvement is necessary.
  - o A resolution is passed outlining the project scope, the affected assessment district, and the proposed allocation of costs.
  - o A public hearing is scheduled to allow property owners to provide input.
3. **Council Determination to Proceed (Resolution #3)**
  - o Following the public hearing, the council decides whether to proceed with the project.
  - o A resolution is passed confirming the plans, cost estimates, and the division of benefits between the properties and the city.
  - o The council directs the City Assessor to prepare a special assessment roll.
4. **Acceptance of the Special Assessment Roll (Resolution #4)**
  - o Once the special assessment roll is prepared, the council passes a resolution to accept it.
  - o The roll is made available for public examination, and a second public hearing is scheduled to address objections or corrections.

## 5. Confirmation of the Special Assessment Roll (Resolution #5)

- After the second public hearing, the council confirms the special assessment roll by resolution.
- This resolution finalizes the assessments, allows for installment payments, and authorizes the City Treasurer to collect the assessments.

### The Importance of the Process for Corridor Improvements

For the CIA, the special assessment process is not just a means of funding; it is a collaborative framework that aligns property owners, city leaders, and the broader community around shared goals. By following this structured approach, the city ensures:

- **Equity and Transparency:** The process is designed to fairly allocate costs based on the direct benefits received by each property. Property owners are informed at every step and given opportunities to voice their concerns or support.
- **Community Engagement:** Public hearings and notifications provide a platform for open dialogue, fostering trust between property owners and the city. This collaboration is key to building consensus and ensuring successful implementation of projects.
- **Long-Term Impact:** Special assessments enable transformative projects—such as infrastructure improvements or streetscape enhancements—that might not otherwise be possible. These projects can attract new businesses, increase property values, and improve the overall experience for those living, working, and visiting the corridor.

### Novi's History with Special Assessments

The City of Novi has a long history of utilizing the SAD process to fund a wide range of infrastructure projects, including paving, water, sewer, and other essential utilities. One of the earliest examples is the Willowbrook Sewer Project, which encompassed SADs four through seven. More recently, this financing mechanism has been used for Main Street Streetscapes, Town Center Streetlighting, and the Dixon Road Sanitary Sewer Extension, demonstrating its continued effectiveness in supporting community improvements.

The CIA may leverage the SAD process to fund critical enhancements within the corridor, including street lighting, streetscape improvements, and other right-of-way infrastructure upgrades. By using this financing tool, the CIA can ensure that the costs of these enhancements are equitably distributed among benefiting properties while promoting economic development and an improved public realm. Additionally, the SAD process allows for reimbursement opportunities, enabling the CIA to recapture funds for future investment in corridor revitalization efforts.

Through this collaborative and structured approach, the special assessment process becomes a tool not only for funding but also for creating a legacy of improvement and investment in Novi's corridors. It ensures that the CIA's vision for revitalization on either side of Grand River Avenue from Wixom Road to Haggerty Road is achieved in a way that engages stakeholders and strengthens the community as a whole.



# Department of Public Services

## SPECIAL ASSESSMENT DISTRICTS

### SAD Process

#### Resolution # 1

City Council makes three tentative determinations: the necessity of the improvement; the conclusion on whether to proceed with the improvement; and, the establishment of a proposed district of properties that will be specially benefited by the improvement (the proposed "special assessment district"). Once such determinations are made, the Council directs the City Manager to have plans and a cost estimate prepared for the improvement.

#### Resolution # 2

City Council confirms the tentative necessity of the improvement, sets a public hearing date on the issues to be considered for Resolution # 3, and directs the City Clerk to provide notice of the public hearing as provided in the City Code.

**First Public Hearing is held to allow the Council to hear comments and objections on the proposed improvement and on the proposed special assessment district.**

#### Resolution # 3

Following the public hearing, City Council again determines whether to proceed with the improvement, and, if so, this resolution approves the preliminary plans and cost estimate, designates the special assessment district, and directs the City Assessor to prepare a proposed special assessment roll, reflecting the total cost of designing, financing and constructing the improvement and the amount each property in the special assessment district will have to pay.

#### Resolution # 4

City Council receives the proposed special assessment roll prepared by the City Assessor, sets a date for a public hearing on the proposed assessment roll, and directs the City Clerk to provide notice of the public hearing as provided in the City Code.

**Second Public Hearing is held to allow the Council to hear comments and objections on the proposed special assessment roll.**

#### Resolution # 5

Following the public hearing, City Council makes the final determination on proceeding with the improvement, and confirms the special assessment roll, either as presented or as modified based upon comments and objections received at the public hearing.

**The approved improvement is then pursued, and properties are assessed in accordance with Resolution # 5.**



For more information contact:  
Ben Croy  
Water & Sewer Senior Engineer  
248-735-5661

City of Novi | 45175 W. Ten Mile Road  
Novi, Michigan 48375 | 248.347.0460

08/13



## SPECIAL ASSESSMENTS

### What is a Special Assessment?

A Special Assessment can be made for any public improvement within Novi, which is of such a nature as to directly benefit any property within a defined area.

### What types of improvements are financed by Special Assessment?

The most common types of improvements that are financed through the SAD process include:

- Road improvements
- Sanitary sewers
- Water mains
- Storm sewers
- Street lighting
- Sidewalks

### How does the process begin?

The SAD process is initiated by either a resident Request for Information Petition or Resolution by the City Council.

If the process is begun through the new Request for Information Petition, it must be signed by 30 percent of the total units of benefit in the district. Then, a public informational meeting is held regarding the SAD process, preliminary design and cost estimates for the project, and timeframe for the process. The City of Novi's Engineering Division does preliminary engineering for the public informational meeting.

Residents then have 60 days following the public information meeting in which to submit a

formal Petition to Start a Special Assessment District, which must be signed by 51 percent of the total units of benefit (per tap unit, front foot, etc. ) in the proposed district. District boundaries may change between the public information meeting and the submission of the Petition to Start a Special Assessment District. This petition initiates the formal SAD process.

### What is a unit of benefit?

A unit of benefit is determined by the City of Novi on a basis appropriate to the improvement.

### Who oversees the bid process?

The City of Novi's Engineering Division facilitates the bid process and oversees construction of projects.

### Once the process is started, can it be stopped?

City Council views this process as a partnership between the City and the residents. The ordinance does state that property owners can request to stop the process at any time until the City Council adopts Resolution #5; however, since the City incurs significant planning and design expenses at the onset of the process, the City Council has the right to approve or deny such request.

### How many years can the SAD payments be spread over and what is the payment schedule?

The amount of years varies by type of project, however the term is normally less than the life expectancy of the improvement (not to exceed 15 years for roads and 20 years for all other utilities.)

The first installment is due upon confirmation of the SAD roll before construction begins, **OR** on such

date as the City Council may determine. Subsequent installments are billed with the summer property tax bill.

### What is the interest rate?

The interest rate reflects current market conditions and is not to exceed eight percent. The rate is established by the City Council. Interest is calculated on the unpaid balance. If the assessment is prepaid prior to the commencement of interest date, there is no interest charge.

### If I move or sell my property, am I still responsible for the loan?

Once the SAD roll is confirmed the City places a lien on the properties and assumes the position of first lien holder. The City does not require that the assessment be paid off during a real estate transfer; however, individuals should consult with a title company to verify requirements.

### Is there a procedure that would provide relief for property owners with a demonstrated financial hardship?

With the approval of the City Council and the City Assessor, a Special Assessment may be deferred by the reason of poverty per "Federal guidelines" for a specific property. The lien is placed on the property and all payments are deferred until the property is transferred. However, interest accrues on the unpaid balance.

**CITY OF NOVI  
SPECIAL ASSESSMENT DISTRICTS**

| <b><u>DIST#</u></b> |                                                        | <b>NO. OF<br/><u>PYMTS</u></b> | <b>FINAL<br/>YR OF<br/><u>PYMTS</u></b> |
|---------------------|--------------------------------------------------------|--------------------------------|-----------------------------------------|
| 4                   | Willowbrook Sewer (4,5,6,7)                            | 15                             | 1980                                    |
| 8                   | Huron Rouge Sewer (8,10,13)                            | 15                             | 1983                                    |
| 9                   | Connemara Sewer                                        | 15                             | 1980                                    |
| 11                  | Seeley Road Paving                                     | 15                             | 1983                                    |
| 12                  | Orchard Hills Sewer                                    | 15                             | 1983                                    |
| 16                  | Nine Mile Road Paving                                  | 15                             | 1985                                    |
| 17                  | Meadowbrook Road Paving                                | 15                             | 1987                                    |
| 18                  | Novi/Ten Mile Sewer                                    | 9                              | 1981                                    |
| 19                  | Grand River/Seeley Water                               | 15                             | 1987                                    |
| 20                  | Meadowbrook Manor Sewer                                | 15                             | 1987                                    |
| 21                  | Orchard Hills Road Paving                              | 10                             | 1984                                    |
| 22                  | Willowbrook Roads                                      | 10                             | 1984                                    |
| 26                  | Connemara Hills Road Paving                            | 15                             | 1989                                    |
| 27                  | Novi Heights Sewer                                     | 20                             | 1997                                    |
| 28                  | Echo Valley Road Paving                                | 10                             | 1984                                    |
| 29                  | Glenda Street Paving                                   | 15                             | 1991                                    |
| 30                  | Meadowbrook Manor Water                                | 15                             | 1987                                    |
| 32                  | Taft Road-11 mile to G.R.                              | 15                             | 1990                                    |
| 33                  | Taft Road-10 mile to 11 mile                           | 15                             | 1990                                    |
| 34                  | Grey's Sewer                                           | 15                             | 1992                                    |
| 35                  | Meadowbrook-10 mile to 11 mile                         | 15                             | 1991                                    |
| 36                  | Meadowbrook-11 mile to 12 mile                         | 15                             | 1991                                    |
| 37                  | Beck Road-10 mile to 11 mile                           | 15                             | 1991                                    |
| 38                  | Beck Road-11 mile to G.R.                              | 15                             | 1991                                    |
| 39                  | Dropped                                                |                                |                                         |
| 40                  | Thirteen Mile                                          | 15                             | 1993                                    |
| 42                  | Meadowbrook(8-9)Ennishore to Hagg.                     | 15                             | 1992                                    |
| 44                  | Nine Mile-Novl to Taft                                 | 15                             | 1992                                    |
| 46                  | Trans X Sewer                                          | 10                             | 1988                                    |
| 47                  | Dropped                                                |                                |                                         |
| 48                  | Willowbrook #3 Roads                                   | 10                             | 1988                                    |
| 51                  | Taft Road-8-1/2 to 9                                   |                                |                                         |
| 52                  | Dropped                                                |                                |                                         |
| 53                  | Dropped                                                |                                |                                         |
| 54                  | West Road                                              | 15                             | 1994                                    |
| 55                  | Trans X Water                                          | 15                             | 1994                                    |
| 56                  | Trans X paving                                         | 15                             | 1994                                    |
| 61                  | Grand River/Meadowbrook Water                          | 15                             | 1995                                    |
| 62                  | Dropped                                                |                                |                                         |
| 63                  | Sec. 15 Streets (old) -REPLACED BY #84                 |                                |                                         |
| 64                  | Sec. 15 Water-REPLACED BY #85                          |                                |                                         |
| 65                  | West Oaks Storm Retention-REPLACED BY#86               |                                |                                         |
| 66                  | Grand River/Lanny's Road Sewer                         | 15                             | 1995                                    |
| 67                  | Sec. 36 Water                                          | 10                             | 1991                                    |
| 68                  | Sec. 36 Sewer                                          | 10                             | 1991                                    |
| 69                  | Sec. 36 Streets (Orchard Hills)                        | 10                             | 1991                                    |
| 71                  | Dropped                                                |                                |                                         |
| 72                  | Dropped                                                |                                |                                         |
| 73                  | Dropped                                                |                                |                                         |
| 74                  | Dropped                                                |                                |                                         |
| 75                  | Grand River/Meadowbrook-11 Mile SW (Weiss)             | 15                             | 2000                                    |
| 76                  | Dropped/Grey's Subdivision                             |                                |                                         |
| 77                  | Novi Road/S. of Ten Mile(Melvin)                       | 15                             | 2000                                    |
| 78                  | Novi Road/S. of Ten Mile(Melvin)                       | 15                             | 2000                                    |
| 79                  | Town Center Paving                                     | 15                             | 2002 ???                                |
| 80                  | Town Center Storm Sewer                                | 15                             | 2000                                    |
| 81                  | Street Lighting-West Lake Dr area (utility costs only) |                                | ON-GOING                                |
| 81                  | Town Center Sanitary                                   | 15                             | 2000                                    |
| 82                  | Town Center Water                                      | 15                             | 2000                                    |
| 83                  | Grand River/Beck (Gerak) - Sewer                       | 15                             | 2002                                    |
| 84                  | Section 15 Novi-12 Mile Paving                         | 15                             | 2000                                    |
| 85                  | Section 15 Novi-12 Mile Water                          | 15                             | 2000                                    |
| 86                  | Section 15 Storm Sewer                                 | 15                             | 2000                                    |
| 87                  | Dropped/Salow's Walnut Hill Taft                       |                                |                                         |
| 88                  | Brookside Road & Drain                                 | 15                             | 2002                                    |
| 89                  | Brookside Water Extension                              | 15                             | 2002                                    |

**CITY OF NOVI  
SPECIAL ASSESSMENT DISTRICTS**

| <b>DIST#</b> |                                                                    | <b>NO. OF<br/>PYMTS</b> | <b>FINAL<br/>YR OF<br/>PYMTS</b> |
|--------------|--------------------------------------------------------------------|-------------------------|----------------------------------|
| 90           | Pioneer Meadows Paving                                             | 15                      | 2001                             |
| 91           | Dropped/Novi Hgts Water Ext.                                       |                         |                                  |
| 92           | Novi Road Extension(Melvin Contract)                               | 15                      | 2001                             |
| 93           | Grand River/Beck Water Extension                                   | 15                      | 2002                             |
| 94           | Novi/12 Mile to 12-1/2 Mile Extension - SW                         | 15                      | 2002                             |
| 95           | Eleven Mile/G.River to Meadowbrook                                 |                         |                                  |
| 96           | Eleven Mile/G.River to Meadowbrook                                 |                         |                                  |
| 97           | Ten Mile/Beck Sewer Extension                                      | 15                      | 2002                             |
| 98           | Ten Mile/Beck Water Extension                                      | 15                      | 2002                             |
| 99           | Sewer Extension(Melvin Contract)                                   |                         |                                  |
| 100          | Water Extension(Melvin Contract)                                   |                         |                                  |
| 101          | Dropped/Grey's Sub. Paving                                         |                         |                                  |
| 102          | Marlson Street Water Main                                          |                         |                                  |
| 103          | Novi Road Traffic Signals -W.O. (1989)                             | N/A                     | ????2003                         |
| 104          | G.River/Beck-West - SW                                             | 10                      | 1999                             |
| 105          | G.River/Beck-West - Water                                          | 10                      | 1999                             |
| 106          | G.River/Beck-East - Sewer                                          | 10                      | 2000                             |
| 107          | Combine SAD 77,78,92,99,100                                        |                         |                                  |
| 108          | Town Center Street Light & Maintenance (and replacement)           | See DPS                 | ON-GOING                         |
| 109          | West Oaks Street Lights (utility costs only)                       |                         | ON-GOING                         |
| 110          | Aspen Street Extension                                             |                         |                                  |
| 111          | Section 18 Extension(Thompson-Brown)                               |                         |                                  |
| 112          | Austin Drive Street Lighting                                       |                         |                                  |
| 113          | Crow, DedGross, Shamrock Hill                                      |                         |                                  |
| 113          | Shawood Street Lighting                                            |                         |                                  |
| 114          | Novi Heights Area St. Paving                                       | 10                      | 1998                             |
| 115          | Sandstone Roads                                                    |                         |                                  |
| 116          | Sandstone Sanitary Sewer                                           |                         |                                  |
| 117          | Sandstone Storm Sewer                                              |                         |                                  |
| 118          | Sandstone Water Mains                                              |                         |                                  |
| 119          | Haggerty Road Sewer Line (14/Expwy)                                |                         |                                  |
| 120          | Haggerty Road Water Line (14/Expwy)                                |                         |                                  |
| 121          | Connemara Hills-Water-Dropped                                      |                         |                                  |
| 122          | E. Lake Drive-Culdesac-cancelled                                   |                         |                                  |
| 123          | Chase Farms Improvements                                           |                         |                                  |
| 124          | Lanny's Road Paving                                                | 10                      | 2000                             |
| 125          | Paramount Street Water-Cancelled                                   |                         |                                  |
| 126          | Henning Street Water Extension                                     | 10                      | 2000                             |
| 127          | Riverbridge Sewer                                                  | 15                      | 2005                             |
| 128          | Riverbridge Water                                                  | 15                      | 2005                             |
| 129          | Riverbridge Street/Storm                                           | 15                      | 2005                             |
| 132          | Sandstone Paving                                                   | 15                      | 2006                             |
| 133          | Sandstone Sewer                                                    | 15                      | 2006                             |
| 134          | Sandstone Water                                                    | 15                      | 2006                             |
| 139          | Burton Street Closing                                              |                         |                                  |
| 140C         | Haggerty Road 10 MI to GR (Providence/Chrysler - Portion \$84K)    | 5                       | 1997                             |
| 141          | Beck/Pontiac Trail Sewer                                           |                         |                                  |
| 143          | G.R. Street Lighting (Providence - one light - utility costs only) |                         | ON GOING                         |
| 144          | 14 Mile Sanitary (never approved) [INACTIVE]                       |                         |                                  |
| 145          | Mainstreet - Road                                                  | 15                      | 2009                             |
| 146          | Mainstreet - Streetscape                                           | 15                      | 2010                             |
| 148          | Salow's Walnut Hill Sanitary Sewer                                 | 30                      | 2027                             |
| 149          | Eubank Street Watermain                                            | 30                      | 2028                             |
| 150          | Willowbrook Storm Drain                                            | 10                      | 2008                             |
| 151          | Austin Drive Watermain                                             | 30                      | 2029                             |
| 152          | Shawood Watermain                                                  | 30                      | 2029                             |
| 154          | Shawood Sanitary Sewer                                             | 30                      | 2029                             |
| 155          | Twelve Mile Rd Improvements (Construction)                         | 15                      | 2015                             |
| 155          | Twelve Mile Rd Improvements (debt and receivable)                  | 15                      | 2015                             |
| 156          | Henning (INACTIVE)                                                 |                         |                                  |
| 159          | Lakewall Sub (INACTIVE)                                            |                         |                                  |
| 160          | Lakewall (roads) (INACTIVE)                                        |                         |                                  |
| 161          | West 11 Mile Sanitary Sewer (INACTIVE)                             |                         |                                  |
| 162          | Pioneer Meadows Sanitary                                           | 20                      | 2022                             |
| 163          | Pioneer Meadows Water                                              | 20                      | 2022                             |
| 164          | Birchwood/Delmont Water (INACTIVE)                                 |                         |                                  |

**CITY OF NOVI  
SPECIAL ASSESSMENT DISTRICTS**

| <b><u>DIST#</u></b> |                                                                            | <b>NO. OF<br/><u>PYMTS</u></b> | <b>FINAL<br/>YR OF<br/><u>PYMTS</u></b> |
|---------------------|----------------------------------------------------------------------------|--------------------------------|-----------------------------------------|
| 165                 | Connemara Hills (Kilrush Dr) Water                                         | 20                             | 2022                                    |
| 168                 | West Lake Drive Water                                                      | 20                             | 2023                                    |
| 169                 | West Lake Drive Paving                                                     | 20                             | 2023                                    |
| 170                 | Maybury, Tuscany, Singh - Sect 32 Sanitary (Construction)                  | N/A                            | N/A                                     |
| 170                 | Maybury, Tuscany, Singh - Debt & A/R                                       | 15                             | 2018                                    |
| 171                 | Woodham & Cedarwood (Echo Valley) Water                                    | 20                             | 2023                                    |
| 172                 | Blomfield & Bentley Sub Water Main (final year 2020 after applying credit) | 20                             | 2024*                                   |
| 173                 | Conemara/Galway Dr Water                                                   | 20                             | 2024                                    |
| 176                 | Woodham Road Water Main Extension                                          | 20                             | 2031                                    |
| 179                 | Vistas of Novi - Road and Utility Improvements                             | 15                             | 2032                                    |
| 180                 | Andes Hills - Water Main                                                   | 20                             | 2037                                    |
| 181                 | Knightsbridge Gate - Roads, utilities, sidewalks, pathways                 | 10                             | 2026                                    |
| 182                 | Dixon Road Sanitary Sewer Extension                                        | 20                             | 2037                                    |
| 183                 | Walled Lake Improvements - Lake treatment                                  | 5                              | 2024                                    |

## Active Special Assessments

### SAD

### Installments

|                                                                             |       |
|-----------------------------------------------------------------------------|-------|
| 148-Sewer Ext                                                               | 27-30 |
| 149-Water                                                                   | 26-30 |
| 151-Water                                                                   | 24-30 |
| 152-Water                                                                   | 25-30 |
| 176-Water                                                                   | 13-20 |
| 183 Lake Board**                                                            | 5-5   |
| 183D Delinquent Lake Board**                                                | 1     |
| 179-Vistas of Novi (Holmes Rd, Hemingway Dr, Brownstone Dr)*                | 7-15  |
| 180-Andes Hills (Water Main)                                                | 7-20  |
| 181 Knightsbridge Gate** (Roads, Utilities, Sidewalks, Pathways)            | 8-10  |
| 182-Dixon Rd Sanitary Sewer Ext (5 Parcels)                                 | 7-20  |
| 301-Police Alarms                                                           | N/A   |
| 812-Street Light (Reviewed periodically - ongoing st lgts - charged by DTE) | N/A   |
| 997-Water/Sewer (Delinquent Water)                                          | N/A   |
| 030-Ord Abatement (Fees)                                                    | N/A   |
| 003-Miscellaneous (Return Deposit Fee)                                      | N/A   |
| 005-Delinquent Tax                                                          | N/A   |
| 998- Tap Fees (Kristin Fees)                                                | N/A   |

\*179-Road/Utility Improvement (Meadowbrook Townhouses  
Brownstone Vistas, Tollgate Ravines)

\*\* Billed in Winter Only



December 26, 2024

City of Novi  
26300 Lee BeGole Dr  
Novi, MI 48375

Re: Proposed Streetlighting-Main St

I have completed the review of your request for the proposed lighting and have prepared a cost estimate for the installation of one hundred and five (105) streetlights. I am proposing the installation of forty-five (45), 12’ decorative posts with forty-five (45) 39w LED acorn luminaires. Twenty-five (25), 12’ decorative posts with dual crossarm and fifty (50) 39w LED acorn luminaires. Five (5), 20’ square posts mounted on high-band foundations and ten (10), 149w LED Area lights with Type 5 distribution. Posts and luminaires to have a black finish. Streetlights to be fed by underground cable.

The costs are based on the Option 1 Municipal Street Light rate, where DTE Energy installs, owns, and maintains the lighting system. The rate requires a portion of the construction costs be paid by the customer, which is determined by the following formula.

|                                                    |                     |
|----------------------------------------------------|---------------------|
| <b><u>Underground fed (105) LED Luminaires</u></b> |                     |
| Annual Operating Cost                              | \$25,781.00         |
| Costs to Construct                                 | \$530,177.00        |
| 3yr Revenue Credit                                 | (\$77,343.00)       |
| <b>Contribution from the City of Novi</b>          | <b>\$452,834.00</b> |

The price quoted shall be in effect for a period of six months from the date of this letter, after which these costs will no longer be valid.

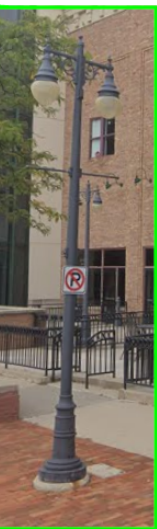
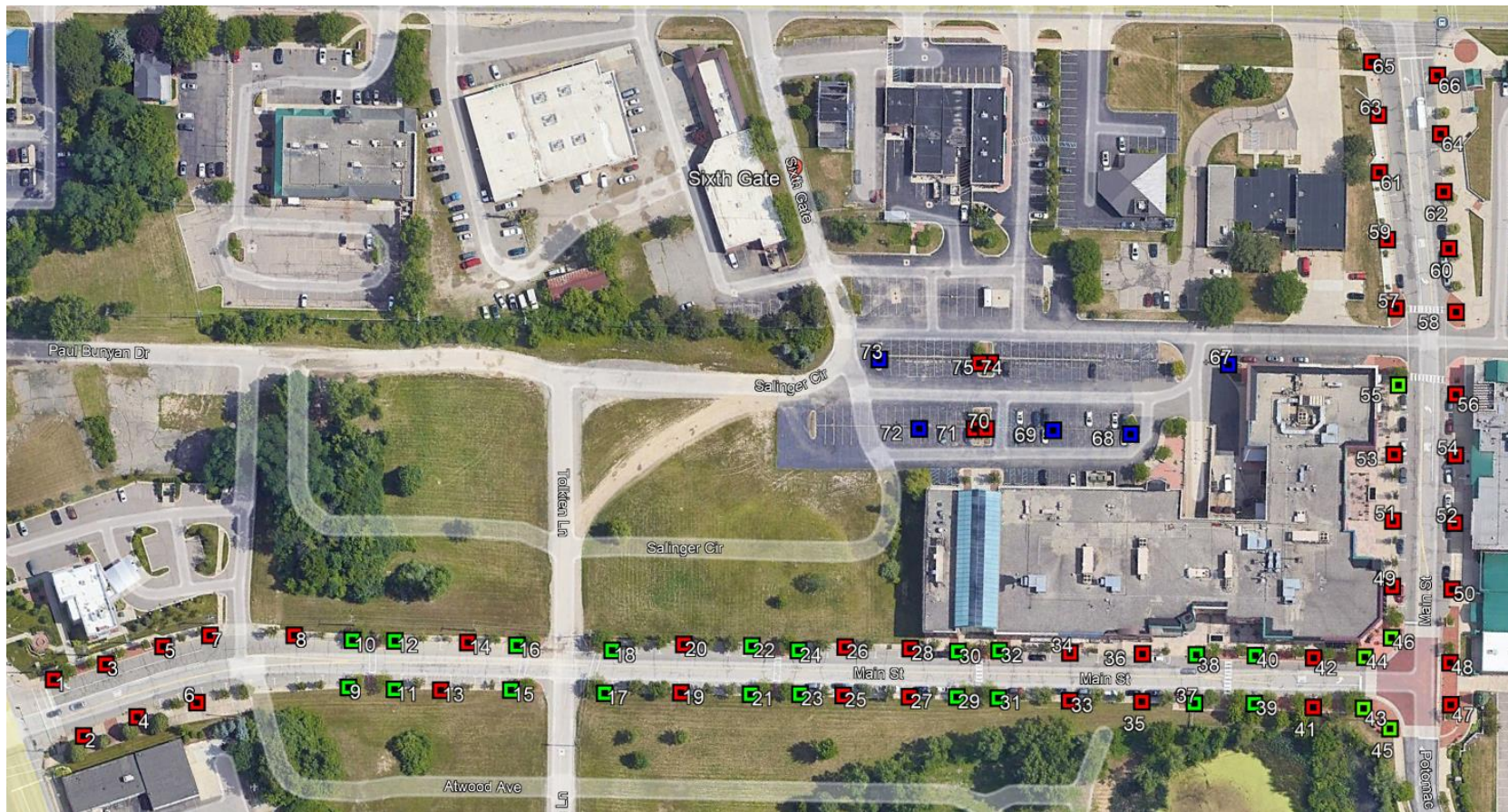
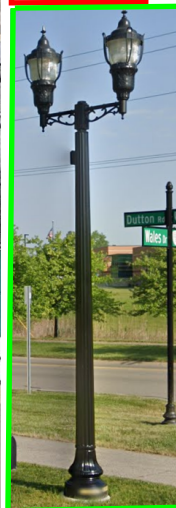
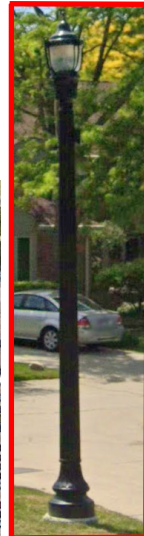
Please contact me for a streetlighting agreement if you would like to proceed with the above installation.

Please call if you have questions, 734-397-4017.

Sincerely,  
*Brandon R. Faron*  
Brandon R. Faron  
Account Manager  
Community Lighting

Existing Lighting

Proposed Lighting



**City of Novi**  
**Interfund Borrowing CIA and SAD Funds**  
**June 30, 2025**

|        | Borrowing | Payments    | Principle Balance | Annual Interest Total | Annual Total  | Tax Capture<br>150,763 | Initial capture |
|--------|-----------|-------------|-------------------|-----------------------|---------------|------------------------|-----------------|
| Jun-20 | 2,766,292 | -           | 2,766,292         | (57,096)              | (57,096)      | 294,088                |                 |
| Jun-21 | 1,148,032 | (251,202)   | 3,663,122         | (84,620)              | (335,822)     | 333,592                |                 |
| Jun-22 | 61,858    | (292,075)   | 3,432,905         | (103,375)             | (395,450)     | 526,808                |                 |
| Jun-23 | 56,495    | (490,324)   | 2,999,076         | (91,836)              | (582,160)     | 716,753                |                 |
| Jun-24 | 25,294    | (668,213)   | 2,356,157         | (74,184)              | (742,397)     | 789,142                |                 |
| Jun-25 | -         | (776,302)   | 1,579,855         | (70,685)              | (846,987)     | 808,645                |                 |
| Jun-26 | 500,000   | (998,645)   | 1,081,210         | (47,396)              | (1,046,041)   | 998,645                | * Estimated     |
| Jun-27 | -         | (1,098,510) | (17,300)          | (32,436)              | (1,130,946)   | 1,098,510              | * Estimated     |
| Jun-28 |           |             |                   |                       |               | 1,208,360              | * Estimated     |
| Jun-29 |           |             |                   |                       |               | 1,329,196              | * Estimated     |
| Jun-30 |           |             |                   |                       |               | 1,462,116              | * Estimated     |
| Jun-31 |           |             |                   |                       |               | 1,608,328              | * Estimated     |
| Jun-32 |           |             |                   |                       |               | 1,769,161              | * Estimated     |
| Jun-33 |           |             |                   |                       |               | 1,946,077              | * Estimated     |
| Jun-34 |           |             |                   |                       |               | 2,140,684              | * Estimated     |
| Jun-35 |           |             |                   |                       |               | 2,354,753              | * Estimated     |
| Jun-36 |           |             |                   |                       |               | 2,590,228              | * Estimated     |
| Jun-37 |           |             |                   |                       |               | 2,849,251              | * Estimated     |
|        |           |             |                   | (561,628)             | - (5,136,898) | 5,716,946              |                 |

Streetlight Estimate - Additional Borrowing

Payments, principal balance adjusted for additional borrowing of \$250,000

\* Estimated increase from finance. Jan provided FY 2026

Actual as of 4/30/25

# SMART Bus Stop Design Standards Manual (JAN 2025)

## Quickstart Guide

### SMART Bus Stop Design Goals

- 1 Safety for all
- 2 Considerate of all street users
- 3 Consistent and barrier free
- 4 Unified street, vehicle, and platform design
- 5 Universal design is equitable design
- 6 Integrated into the surrounding streetscape

### What is the Manual?

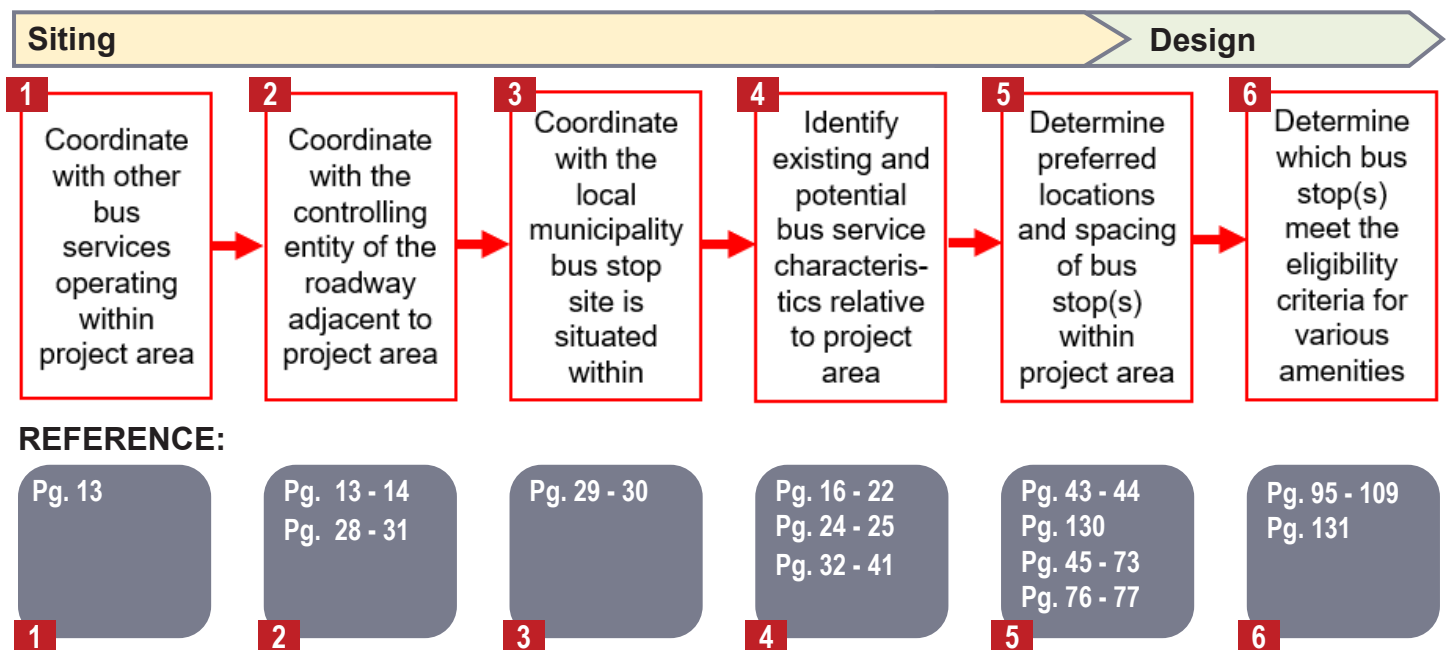
The SMART Bus Stop Design Standards Manual (the Manual) provides the following to help guide effective planning, design, and placement of bus stops:

- Comprehensive, up-to-date stop design standards that are compliant with local, state, and federal regulations
- Stop design criteria informed by national best practices, tailored to the southeast Michigan region

Page 10 of the Manual includes more on the Goals, see left, and page 12 includes a guide on how to use the Manual based on your role in bus stop projects (transportation planners and designers, agency officials, and bus operators).

## Siting, Design, and Construction Process

The Manual is best used following SMART's standard bus stop siting, design, and construction process. A summary of the major siting and design steps for any bus stop project is provided below, and can be found on page 13 in the Manual. 'Siting' is determining where the stop will be placed, and 'design' is deciding what the stop should look like.



# Bus Stop Request Flowchart

The Bus Stop Request Flowchart walks through the necessary siting, design, and construction steps depending on the action proposed by SMART or local stakeholders for a certain stop or location: adding a new stop or moving, eliminating, or improving an existing stop. Found on [page 129](#) in the Manual, the Bus Stop Request Flowchart is the starting point for each proposed bus stop project, and should be referenced throughout the duration of the project.

**START:** Are you adding a new stop or altering an existing stop?

Add new stop

Move existing stop

Eliminate existing stop

Improve existing stop

Review distance to stops adjacent to potential bus stop site using Table 27: SMART Bus Stop Spacing Criteria

Review average daily boardings and distance to adjacent stops using Table 27: SMART Bus Stop Spacing Criteria

Review stop SMART Amenity Need Score using Table 28

**SITING:**  
Review possible stop locations.

Add stop if adjacent stops are farther from potential bus stop site than distance recommended by Table 27: SMART Bus Stop Spacing Criteria

Eliminate stop if has less than 2 average daily boardings

If stop has 2 or more average daily boardings but does not meet Table 27: SMART Bus Stop Spacing Criteria, move so that it does

Keep/don't move if stop meets Table 27: SMART Bus Stop Spacing Criteria and has 2 or more average daily boardings

Improve stop if Amenity Need Score is 20 or above

**DESIGN:**  
Prepare and finalize stop site plan.

Input new stop site or remove stop from asset management software and provide public notice

If adding or moving stop, review stop SMART Amenity Need Score using Table 28 to determine amenities provided

Prepare site plan, including any amenity installation, for review

When site plan is approved, prepare and submit work order to Bus Stop Crew

Road adjacent to bus stop site is in MDOT jurisdiction

Submit permit application to MDOT

Send permit to Bus Stop Crew

Send site plan review, work order to contractor

Road adjacent to bus stop site is in County jurisdiction

Provide Bus Stop Crew site location and design details

Bus Stop Crew procures permit(s)

Bus Stop Crew send site plan review, permit(s) and work order to contractor

**CONSTRUCTION:**  
Build the stop.

Contractor completes work

## LEGEND

Start

Site Detail

Siting

Design

Construction

# 1 Bus Stop Siting

## Agency Coordination

When siting a new stop or updating an existing stop, the first question to ask is who the owner, i.e. controlling entity, responsible for that road is. Bus service typically operates on roadways that are neither owned nor controlled by the transit agency providing service. Generally, the owner of roadways with transit service is either the state, county, or the local municipality the road is located within. Identifying the owner of the roadway informs who you should coordinate with regarding your bus stop project, and what standards and regulations you will need to follow in the siting, design and construction of your stop. See [pages 13 - 14](#) and [pages 28 - 31](#) for more information on who to coordinate with during your project and when.

### Whose road is the proposed or existing bus stop on?

#### State of Michigan

MDOT standards,  
Michigan Manual on Uniform  
Traffic Control Devices  
(MMUTCD)

#### Local Municipalities in SMART Service Area

Local municipal codes,  
ordinances and safety codes

#### Oakland, Macomb, or Wayne County

County road commission,  
department of roads or public  
works standards

### Reach out to:

MDOT TSC  
Utilities and Permits Coordinator

Local municipality's  
Project Engineer

County's road commission or  
department of public works

## Stop Spacing

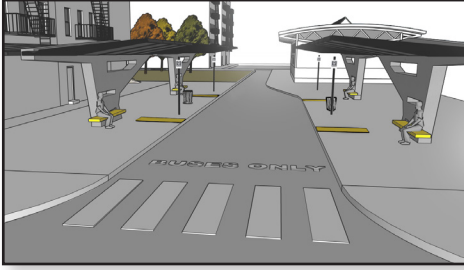
### SMART Bus Stop Spacing Criteria

| Service Type         | Local Land Use Type                          | People per Mile <sup>2</sup> | Recommended Distance between Bus Stops (Miles)                           |
|----------------------|----------------------------------------------|------------------------------|--------------------------------------------------------------------------|
| Standard Fixed-Route | Residential Areas                            | Less than 2,880              | 0.42 – 0.50                                                              |
|                      |                                              | 2,880 – 9,660                | 0.33 – 0.42                                                              |
|                      |                                              | More than 9,660              | 0.25 – 0.33                                                              |
|                      | Central Business District (CBD) and Near CBD |                              | 2 blocks and/or every block with high passenger boarding/alighting rates |
| Express Limited-Stop |                                              |                              | 1 – 2                                                                    |

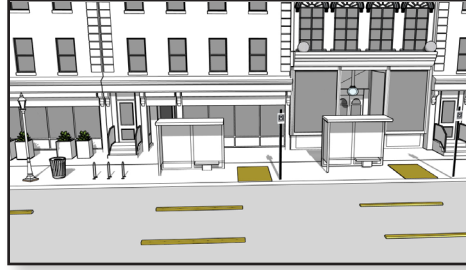
Next, use SMART's Bus Stop Spacing Criteria ([pages 130](#)) to determine the spacing between the proposed or existing stop and adjacent stops. First, identify the stop service type (express or standard). Then, consider local land uses and population densities near the stop to determine the recommended distance between stops. See [pages 43-44](#) for more on stop spacing and [pages 24-26](#) for more on population density and land use impact bus stop siting.

# General Stop Type

**1** Off-Street Transfer Center



**2** On-Street Transfer Center



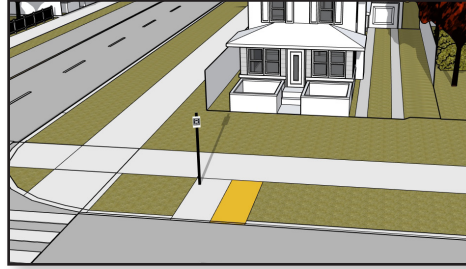
**3** Network Hub Stop



**4** Standard Stop



**5** Coverage Stop



**6** Flag Stop

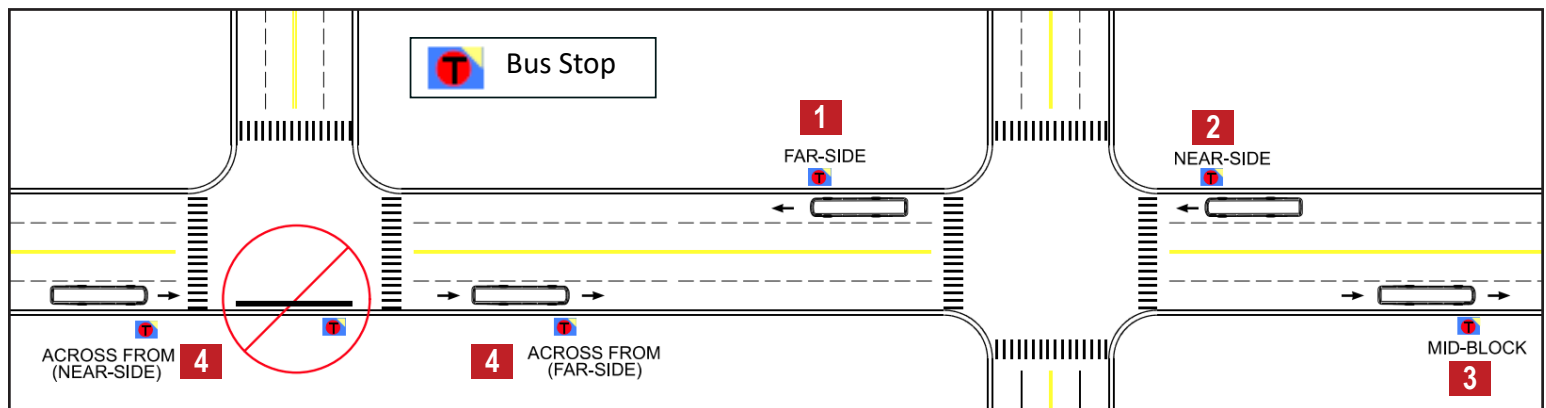


Once the approximate site for the stop has been chosen, you need to decide what type of stop it will be. There are six different types of stops within SMART's network. [Pages 16-22](#) of the Manual discuss the advantages, disadvantages, and application context for each of the six stop types. The major distinguishing factors between the different types are how many people and routes the stop has the capacity to serve, and the streetscape it is most appropriate within.

## Stop Position

The last major stop siting decision that must be made is the stop's position, i.e. where it is placed relative to the adjacent intersection(s). There are four different stop positions, all shown below: far-side [1], near-side [2], mid-block [3], and across-from [4]. The Manual includes general guidance about what stop position to use in common street situations. Recommendations for when to apply each possible stop position in a wider variety of situations are also provided. These recommendations depend on the intersection and street characteristics. Traffic volumes and maneuvers in addition to pedestrian conditions are most important to stop position decisions.

- **Where are far-side stops recommended?**  
See [pg. 46-47](#), Table 3
- **Where are near-side stops recommended?**  
See [pg. 47-48](#), Table 4
- **Where are mid-block stops recommended?**  
See [pg. 48](#), Table 5
- **Where are across-from stops recommended?**  
See [pg. 48](#), Table 6



# 2 Bus Stop Design

## Stop Configuration

### Common Configurations

|                                                 |                                                                                                                   |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Pull-Out Stop</b><br>(pg. 51-54)             | Buses shift out of the travel lane and into part of the parking lane signed as a bus stop.                        |
| <b>In-Lane Stop</b><br>(pg. 55-58)              | Buses stop in signed section of travel lane adjacent to the curb.                                                 |
| <b>Boarding Bulb Stop</b><br>(pg. 59-62)        | Buses stop at a type of curb extension, a bulb-out, rather than pulling in and out of the parking lane.           |
| <b>On-Street Transfer Center</b><br>(pg. 63-65) | Provide multiple adjacent stops serving one or more routes to streamline areas where multiple buses need to stop. |

### Configurations Commonly Paired with Bicycle Facilities

|                                               |                                                                                                                              |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Boarding Island Stop</b><br>(pg. 66-68)    | Provide a boarding/alighting area separate of the cycle track on an island situated between the cycle track and travel lane. |
| <b>Shared Cycle Track Stop</b><br>(pg. 69-70) | Buses shift into a section of the cycle track to pull to the curb and stop.                                                  |

Stop design starts with deciding on a stop configuration. See [pages 49-70](#) for advantages, disadvantages, and recommended applications of the six different configurations discussed in the Manual. See [pages 71-73](#) for minimum dimensions by configuration, stop position, and maximum bus length.

**Certain configurations are recommended for specific street contexts.**

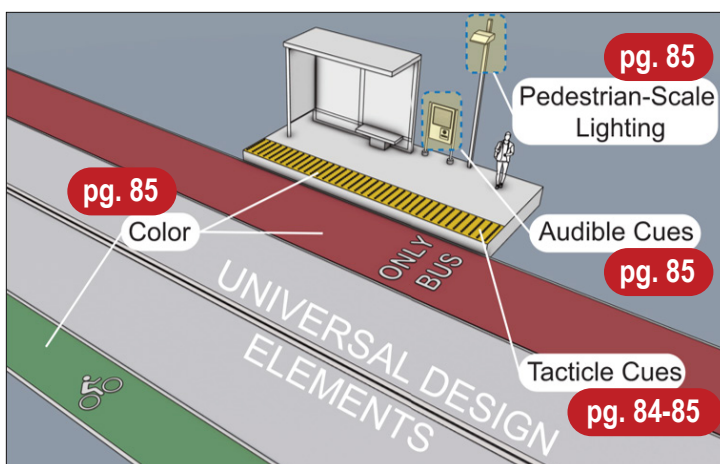
However, if a street meets the minimum dimensional requirements for a configuration, you can use that configuration even if it's not specifically recommended, as long as it's not explicitly advised against in that context.

## Stop Accessibility

Centering accessibility in bus stop design is essential to the success of transit networks. Bus stops are key links in every bus passenger's journey. The Manual provides an overview of accessibility regulations and key stop accessibility considerations (see [pages 80-83](#) and [86-94](#)). Examples of inaccessible stops are also included for reference (see [pages 76-77](#)). Further, universal design and the primary bus stop universal design elements are discussed (see [pages 84-86](#)). At each stop, start with a review of any relevant key accessibility considerations, for which the Manual lists both the requirements for ADA-compliance and universal design guidelines. Amend your design as necessary to ensure ADA-compliance and if possible, to incorporate universal design elements.

### Accessibility Regulations (pages 80-82)

|            |
|------------|
| US DOT ADA |
| ABA        |
| PROWAG     |
| ANSI       |
| Title VI   |



### Key Accessibility Considerations

- Adjacent Paths of Travel (pg. 86-87)
- Adjacent Street Crossings (pg. 88-89)
- Shelters (pg. 90-91)
- Bus Stop Landing Pads (pg. 92-93)
- Bus Stops without Sidewalk Access (pg. 94)

# Stop Amenities

## Bus Stop Amenity Need Scoring

| Bus Stop Name/Location        |                                                                                                              | Bus Stop Number          |                |             |
|-------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------|----------------|-------------|
| Amenity Need Factor           |                                                                                                              | Range                    | Point Value    | Point Total |
| 1                             | What is the average number of daily boardings at the stop?                                                   | N/A                      | 1 per boarding |             |
| 2                             | How frequent is bus service to the stop?                                                                     | Less than 15 minutes     | 0              |             |
|                               |                                                                                                              | 15 – 29 minutes          | 1              |             |
|                               |                                                                                                              | 30 – 44 minutes          | 3              |             |
|                               |                                                                                                              | 45 – 59 minutes          | 5              |             |
|                               |                                                                                                              | 60 minutes or more       | 7              |             |
| 3                             | How many different bus routes serve the stop?                                                                | 1                        | 1              |             |
|                               |                                                                                                              | 2                        | 3              |             |
|                               |                                                                                                              | More than 2              | 5              |             |
| 4                             | Is the stop a transfer point between buses or buses and other modes of transportation?                       | No                       | 0              |             |
|                               |                                                                                                              | Yes                      | 1              |             |
| 5                             | What major passenger generators are within a quarter mile of the stop?                                       | Medical                  | 2              |             |
|                               |                                                                                                              | Grocery                  | 2              |             |
|                               |                                                                                                              | Educational              | 2              |             |
|                               |                                                                                                              | Multi-family Housing     | 2              |             |
|                               |                                                                                                              | Elderly/Assisted Living  | 2              |             |
| 6                             | How many wheelchair ramp deployments per week are there at the stop on average?                              | 0 times per week         | 0              |             |
|                               |                                                                                                              | 1 or more times per week | 2              |             |
| TOTAL AMENITY NEED SCORE:     |                                                                                                              |                          |                |             |
| Amenities based on Need Score | Less than 20                                                                                                 | No Amenities             |                |             |
|                               | 20 to 30                                                                                                     | Bench, Trash Can         |                |             |
|                               | More than 30                                                                                                 | Shelter, Trash Can       |                |             |
| Reasons for Disqualification  | Not enough space for amenity<br>No connecting sidewalk*<br>Slope or conditions make amenity cost prohibitive |                          |                |             |

\*Amenity should not be an island.

After deciding on a configuration and evaluating stop accessibility, it's time to figure out what amenities should be included at the proposed or existing stop. Use SMART's Bus Stop Amenity Need Scoring (page 131) to determine whether a stop needs a bench, trash can, and/or shelter. Signage should be provided at all stops. Wayfinding information and real-time information displays should be provided in specific situations. Note that the Manual discusses both amenities that SMART provides and does not provide.

| SMART Funded, Installed, and Maintained | NOT SMART-Funded, Installed, or Maintained |
|-----------------------------------------|--------------------------------------------|
| Signage                                 | Lighting                                   |
| Shelters                                | Heating or Cooling                         |
| Benches                                 | Bicycle Parking                            |
| Trash Cans                              | Landscaping                                |
| Wayfinding Information                  | Emergency Response Phones                  |
| Real-Time Information Displays          |                                            |

# Stop Safety and Security

Passenger and pedestrian safety and security are vital to stop design, and should always be evaluated prior to finalizing the stop site plan. The Manual groups safety and security concepts into two buckets: collision mitigation and CPTED. Collision mitigation is discussed via design factors that lower the risk of potential vehicle/people collisions and bus/other vehicle collisions. A summary of what CPTED is, its core principles, and subsequent design strategies is also included.



## Collision Mitigation Factors

### 1 Preventing collisions between vehicles and pedestrians/passengers (pg. 120-123)

- Bus Stop Placement
- Visibility
- Road/Street Design
- ADA Accessibility

### 2 Preventing collisions between buses and other vehicles (pg. 123-125)

- Visibility
- Road/Street Design
- Opportunities for Incursions with Other Vehicles



## Crime Prevention through Environmental Design (CPTED)

- Multidisciplinary approach to deterring criminal behavior, reduce victimization, and build community sense of safety
- **CPTED Design Strategies (pg.126-127):**
  - Natural Surveillance
  - Natural Access Control
  - Territorial Reinforcement
  - Activity Support and Maintenance
  - Mechanical Reinforcement

# 3 Bus Stop Construction

High-level guidance on the bus stop construction process and how the bus stop crew should handle implementation of final stop site plans can be found within the Bus Stop Request Flowchart ([page 129](#)).

## Modifications During Construction

When construction work on an existing bus stop or other construction project directly adjacent to the stop occurs, there are several coordination and accessibility standards that must be followed.



All construction/maintenance plans affecting bus stops should be shared with SMART.



Temporary Traffic Control and Maintenance of Traffic plans must include temporary stop alterations.



SMART must provide passengers notice of temporary alterations to stops.

### Temporary Alterations to Stops

Traffic control devices for temporary stop alterations:

- 1** Must not block pedestrian stop access
- 2** Should be on the same side of the road as the existing stop ([pg. 78](#))
  - If routes to a stop are blocked, a channelized alternative route must be provided.
  - If a channelized alternative route is not feasible, a temporary bus stop must be provided.

## Contact Information

Contact SMART at [innovations@smartbus.org](mailto:innovations@smartbus.org) with any questions or needs for expert advice relative information contained within the Manual.

Contact the SMART Marketing Department at [marcomm@smartbus.org](mailto:marcomm@smartbus.org) for more information about signage and advertising.

BRASCO INTERNATIONAL, INC. // PRODUCTS  
BUS SHELTER

# ECLIPSE ARCH



AMERICAN MADE. AMERICAN TRUSTED. SINCE 1993.

32400 Industrial Drive, Madison Heights, MI 48071

# ECLIPSE ARCH

The Eclipse Arch bus shelter from Brasco is a modern and bold addition to any public space. This shelter boasts clean roof lines and panoramic glass applications that are sure to catch the eye of any passerby. Each element of this innovative shelter has been meticulously designed by our team of designers, ensuring durability and longevity in any location. The Eclipse Series shelter is a perfect canvas to incorporate public art projects or add custom branding elements. Brasco's collaborative, client-centered approach guarantees that each project's unique expectations are exceeded.

# GET IN TOUCH

For more information on Brasco's shelter selection, contact our team of dedicated sales representatives at [info@brasco.com](mailto:info@brasco.com) or call 313-393-0393 x 203.



# BUILD YOUR SHELTER

| WIDTH          | 5', 7'                                                                                                                                                        |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LENGTH         | 8', 10', 12', 16', 20'                                                                                                                                        |
| COLUMNS        | 4.5" Round Pocketed Extrusions<br>6" Round Pocketed Extrusions                                                                                                |
| ROOF GLAZING   | Structured Polycarbonate<br>Acrylic<br>Aluminum Sheet                                                                                                         |
| WALL GLAZING   | Clear Tempered Safety Glass<br>Perforated Aluminum                                                                                                            |
| CONFIGURATION  | Full Side Walls with Open Front<br>Right Front Windscreen<br>Left Front Windscreen<br>Centered Front Windscreen<br>Partial Side Walls with Open Front         |
| FINISH OPTIONS | Powder Coat Painted Finish                                                                                                                                    |
| INCLUDED       | Pocketed Columns Conceal Hardware<br>Anchor Boots (4" Adjustability)<br>Concrete Mounting Hardware<br>1 Year Manufacturer's Warranty<br>Buy America Compliant |

## Different Bus Stop Designs

### Art

---

#### Shizuoka, Japan



Photo: Toshiyuki Yano

In Shizuoka, not far from Tokyo, the Japanese studio Suppose Design Office designed this bus shelter that looks like it could be in an anime film. Offering commuters shelter underneath giant umbrellas, it's a poetic and functional reinterpretation of the bus stop.

#### Shodoshima, Japan



This dreamy bus stop, located on the small island of Shodoshima, was designed by Japanese architect Yo Shimada of the firm Tato. Overlooking a beautiful green valley, it is designed to look like water lilies floating on a pond, with the pads made of 90 steel discs. “For people waiting for a bus, these disks can serve as benches or tables, or they can offer shade, depending on their needs,” says the architect.

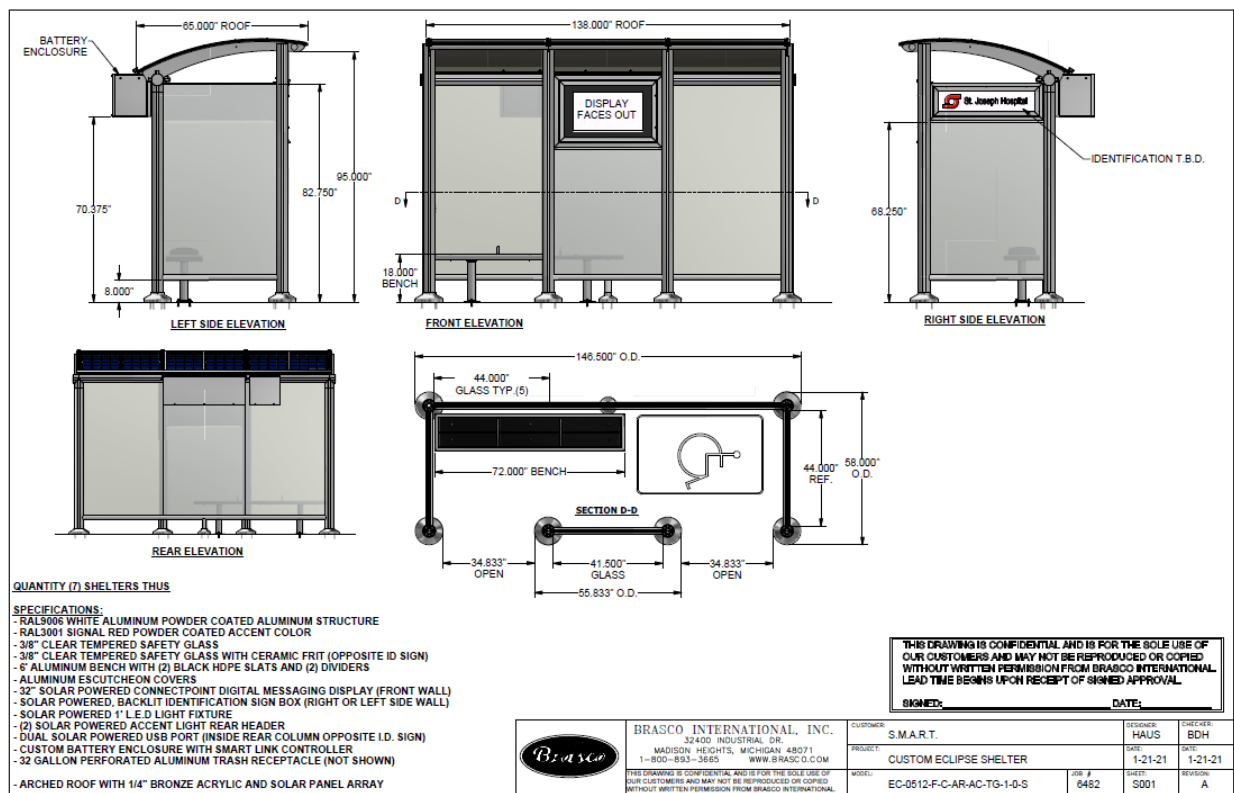
## **Baltimore**



Artist Emilio Aiarcon told Slate that the goal of the project was “to create a very friendly bus stop to contrast with the industrial city,” while still employing conventional industrial materials like wood and steel.

# Basic/Traditional

## SMART Standard Bus Stop Design



Los Angeles, CA



Detroit, MI



The Suburban Mobility Authority for Regional Transportation ([SMART Bus](#)), in Detroit, MI continues to invest in bus stop shelter amenities for its riders. SMART is in the middle of a multi-year deployment of its new [FAST shelters](#) that feature a mix of solar powered digital technologies aimed to improve the ridership experience as well as reduce SMART's operational overhead.

City of Abbotsford, CA



Abbotsford council has approved a program to provide \$50,000 per year for the supply and installation of new bus shelters..

The annual cost for maintenance of the shelters is estimated to be \$20,000 through existing funding.



# Best Practices in Bus Stop Shelters

Ride New Orleans

Written by Policy Manager, Dustin Robertson



## I. Introduction

This report brings together best practices in bus stop shelters. It is based on research and conversations with transit agencies from across the United States. The six cases include cities and systems of varying size, geographies, and ridership, but they are all places that have prioritized bus stop shelters in recent years and made significant progress toward ensuring bus riders have convenient and comfortable places to catch the bus.

Although New Orleans has some bus stop shelters, they are currently insufficient in many ways. The poor state of shelters in the city is particularly problematic. The region has frequently oppressive weather including heavy rain, strong wind, and extreme heat. Furthermore, because bus routes in the area are infrequent (>15 minutes), riders are exposed to these elements for long periods of time.

The Regional Transit Authority (RTA) has signaled its intentions to improve the status of New Orleans bus stop shelters. The agency's Strategic Mobility Plan calls for 90% of stops with >15 boardings to have benches or shelters by 2027. To reach this goal, the agency will need to double the current number of shelters in the next 5 years. The agency has [budgeted significant funds](#) for shelters in the coming years and recently hired a bus stops manager for the first time. However, without clear guidelines and a robust bus stop inventory, we are concerned about whether the agency can reach this goal, and if it will be done in a fair and equitable manner. With this report, RIDE hopes to provide useful insights about how agencies can do bus stop shelters right.

Specifically, we recommend the RTA should:

1. Develop a master plan or public guidelines with clear and logical rules and protocols for installing and managing bus stop shelters.
2. Increase the resources dedicated each year to bus shelter installation and maintenance.
3. Make data about stop shelters available to riders and the public through an open data portal.
4. Establish clear processes for community input on shelter priorities and maintenance needs.
5. Optimize existing shelters by regularly maintaining them and adding amenities such as lighting and updated service information.

## II. Bus stop shelters matter

Sheltered bus stops are an essential component of a high-quality transit system. Shelters are key representations of how a city views transit and transit riders. A system with many well-designed and maintained shelters signals to riders that they matter, while an absence of shelters suggests they are not a priority and tells non-riders to feel fortunate that they do not rely on transit.<sup>1</sup>

Shelters offer a number of important benefits. They can significantly reduce temperatures and keep riders cool in hot climates.<sup>2</sup> They also provide protection during inclement weather.<sup>3</sup> Shelters and other amenities such as benches can also make waiting for the bus more pleasant and even reduce the perceived waiting time for riders.<sup>4</sup> They can also be used to provide important information such as schedules and route maps. For these reasons and more, bus stop shelters are both a symbolic and pragmatic way to dramatically improve the transit experience.

Bus stop shelters should be designed based on the needs and conditions of each place. However, some general design guidelines are given by the National Association of City Transportation Officials in their [Transit Street Design Guide](#). Other important recommendations for ensuring equal and equitable access for all can be found in the American Public Transportation Association's [Transit Universal Design Guidelines](#). Although the design specifications may vary, bus stop shelters are a vital part of any high-quality transit system.

## III. Cases and best practices

### A. Phoenix

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<sup>1</sup> Philip Law and Brian D. Taylor, "Shelter from the Storm: Optimizing Distribution of Bus Stop Shelters in Los Angeles," September 1, 2010.

<sup>2</sup> Yuliya Dzyuban et al., "Public Transit Infrastructure and Heat Perceptions in Hot and Dry Climates," *International Journal of Biometeorology*, January 26, 2021.

<sup>3</sup> Qing Miao, Eric W. Welch, and P. S. Sriraj, "Extreme Weather, Public Transport Ridership and Moderating Effect of Bus Stop Shelters," *Journal of Transport Geography* 74 (January 1, 2019): 125–33.

<sup>4</sup> Yingling Fan, Andrew Guthrie, and David Levinson, "Waiting Time Perceptions at Transit Stops and Stations: Effects of Basic Amenities, Gender, and Security," *Transportation Research Part A: Policy and Practice* 88 (2016): 251–64.

Phoenix has made huge strides in bus shelter development in recent years. Following a voter-approved tax that went into effect in 2016, the city began ramping up its efforts. Currently, around 60% of the 4,000+ bus stops within city boundaries have shelters. However, they are not stopping there. The city has ambitiously targeted 100% coverage! Intense heat and sun are major concerns in Phoenix, so the Public Transit Department installs innovative shelters to provide maximum shade for riders. The design of each shelter considers the site in relation to the sun. For example, East and West facing shelters are to have seating on both sides to provide shade as the sun moves overhead. And the efforts go beyond shade as the department also often installs other amenities such as trash cans, solar lighting and has even experimented with misting machines.

Although the goal is to eventually reach 100% coverage of bus stops with shelters, the Phoenix Public Transit Department installs shelters based on guidelines that prioritize ridership but also other criteria including transfers, proximity to activity centers, and population density.

To ensure transparency and provide valuable information to the public, Valley Metro—the regional transit system that includes Phoenix and surrounding areas, has a user-friendly [open-data platform](#). Users can view detailed system maps, information and photos of each stop, ridership data, and various other useful items.

Examples of Phoenix bus shelters are below:



*Figure 1: Two different designs for Phoenix shelters (Source: Phoenix Public Transit Department)*

**New Orleans can benefit from the Phoenix case by improving access to data either on the RTA's website or the city's open data website.**

## **B. Salt Lake City**

Bus stops in Salt Lake City and the surrounding areas are managed by the customer experience team of UTA (Utah Transit Authority). In the past, bus stop shelters were a largely neglected low priority for the system and only a handful would be added each year. However, in 2016 the agency reconsidered its approach to shelters and made them a top priority. The agency conducted a comprehensive inventory of its bus stops and in 2018 created a “[Bus Stop Master Plan](#).” This plan was created from the customer/rider perspective and includes detailed instructions and designs for shelters and other bus stop amenities. The plan also details a matrix for assessing and allocating resources for bus stop improvements which prioritize criteria such as ridership, ADA compliance, ramp deployments, amenities in the area, and whether or not the route serves a Title VI community. The plan is regularly revisited and updated to meet the needs of riders.

This shift in prioritization has led to big changes on the ground as well. Whereas in the past, UTA only updated or installed shelters at a few stops per year, they now average over 100 interventions per year! Shelters are part of comprehensive improvements to stops which can also include adding ADA accessibility and other components like benches, trash cans, bike racks, and lighting.

The following images show the transformation of one site into an accessible and sheltered stop:



Figure 2: Before and after installation of new shelter (Source: Google Maps and UTA)

**New Orleans can also create a master plan or guiding document dedicated to bus stops.**

### C. San Antonio

VIA, the largest bus-only transit system in the United States, serves San Antonio and 13 surrounding municipalities. In the past, bus stop shelters were sporadically funded and constructed in a non-strategic manner, when resources became available. However, beginning in 2011 the agency began to take a more serious and deliberate approach to shelters with the [NextGen Shelter Program](#). In 2013, VIA revisited its bus stop database and refined it with new details including ridership data as well as customer inquiries and complaints about each stop. The agency then used this database to prioritize stop improvements, and the results were incredible. Within five years, the number of bus stop shelters nearly doubled as [1,000 new shelters](#) were added to the system.

This was not always easy, though. San Antonio's old street network made installing shelters in some places quite challenging. Furthermore, simultaneously managing dozens of shelter installations required significant strategic coordination. However, thanks to dedicated financial and human resources as well as strong partnerships with city and state government agencies, VIA has achieved remarkable success.

Today the system has around 6,800 bus stops, and of these, over 2,400 (≈34%) have shelters. However, by strategically placing shelters in the highest ridership areas, around 95% of trips at sheltered stops. Shelters are allocated according to a scoring system in VIA's "Line Service Policies and Design Standards." Each stop in the system

is scored based on average daily boardings, average headways, route connections, and the presence of amenities such as hospitals, schools, and groceries. The thresholds and scoring have changed somewhat over time, but these four categories have remained constant.



Figure 3: Before and after installation of new shelter (Source: Google Maps and VIA)

**The San Antonio case shows that with a robust database and strong coordination it is possible to install hundreds of shelters in just a few years—something New Orleans is aiming to do by 2027.**

#### **D. Portland**

Portland's TriMet is a pioneering agency that began increasing its bus stop shelter coverage in the early 1990s. The initial target was to build 500 shelters, but after reaching that goal they just kept going. Today the agency has around 1,000 shelters out of 6,000 total stops.

In addition to adding new shelters, the agency is constantly maintaining and replacing existing shelters and making upgrades such as [new e-paper readers](#) which use solar energy to display bus arrival and service information.



Figure 4: An e-paper reader in a TriMet bus stop shelter. (Source: [TriMet](#))

TriMet’s shelters are managed by a team of dedicated professionals and stop improvements are prioritized based on the agency’s comprehensive “[Bus Stop Guidelines](#).” As in other places, ridership is the primary criterion for installation of a shelter (with 50 average weekday boardings as a minimum threshold), but other factors considered include equity, infrequent service, lift usage and proximity of certain facilities such as senior housing. Although TriMet allows advertising in some of its shelters to generate revenue, the agency maintains ownership and control of key decisions such as placement.



Figure 5: Before and after the creation of new bus stop shelter and pedestrian infrastructure (Source: [TriMet](#))

**From the Portland case, New Orleans can learn the importance of creating a multidisciplinary team of dedicated professionals which may include engineers, planners, and customer service personnel to install and manage bus stops.**

### **E. Oklahoma City**

Oklahoma City is another place that has made great strides in bus stop shelter development over the last decade. In 2015, EMBARK, the transit system which serves the city and surrounding areas, began implementing a bus stop management program that had the goals of adding as many new shelters as possible and making all new bus stops ADA-compliant. The push for these improvements initially came from EMBARK's board of trustees and funding came from a combination of a [penny sales tax](#), grants, and local funds. The system of around 1,300 stops currently includes around 300 (~23%) bus stop shelters, a significant increase considering the system had only [about five percent shelter coverage](#) before this initiative. The [current goal](#) is to add 500 more in the near future and place bicycle racks at most shelters.

According to EMBARK's [Title VI Program](#), shelters are added and upgraded based on daily boardings, with a minimum threshold of 10 average boardings per day. Other factors such as rider requests and amenities like grocery stores, job centers, and hospitals are also considered. All shelters include lighting and trash receptacles as well as other amenities such as electronic bus arrival signage at stops with high ridership.

To achieve its ambitious targets, EMBARK relies on strong working relationships with city agencies such as the Department of Public Works which has been simultaneously upgrading the city's sidewalks. When this department is building or modifying a sidewalk in areas with bus stops, they go ahead and make them large enough to accommodate a shelter meaning EMBARK does not need to spend resources and time to modify the space later.



Figure 6: Local councilwoman celebrating Embark's 100<sup>th</sup> shelter in May 2019 (source [Embark](#))

**From this case, New Orleans can learn the importance of collaboration among agencies and departments. When it comes to bus stop shelters there are many opportunities for collaboration, synergy, and piggybacking.**

## **F. Minneapolis—Saint Paul**

In many cities, bus stop shelters are inequitably distributed which leaves some of the highest ridership stops unsheltered. This was historically the case in Minneapolis—Saint Paul before activists and journalists drew attention to [this inequity](#) as well as disproportionate funding for costly infrastructure projects while the needs of the most transit riders were neglected. However, Metro Transit recognized this and decided to change the way it did things. From that point the agency treated inadequate shelters as a serious problem to fix and began revising its guidelines for bus stop shelters. To ensure shelters would meet the needs of riders, the agency partnered with two nonprofits and the University of Minnesota to [conduct a large outreach program](#) to gather input from the public.

Following this community engagement, [Shelter Placement Guidelines](#) were updated in 2018. Previously the guidelines held two different minimum boarding thresholds for shelters—40 daily boardings in central Minneapolis and Saint Paul while only 25 were

required in suburban areas. The updated guidelines adopted a warrant of 30 daily boardings for the entire service area. In addition to boardings, other factors considered for shelter placement include the rate of car ownership in the area and proximity to important amenities like hospitals, social service providers, and major transfer points.

Today the system features around 900 shelters out of 12,000 total stops. However, thanks to strategic and targeted placement, over 65% of boardings occur at sheltered stops. Furthermore, the percentage of sheltered boardings has increased significantly since 2016 across all racial groups. The percentage of black bus riders boarding from sheltered stops is the highest of all – 72%.

### Shelter availability by race & ethnicity: 2016-2020

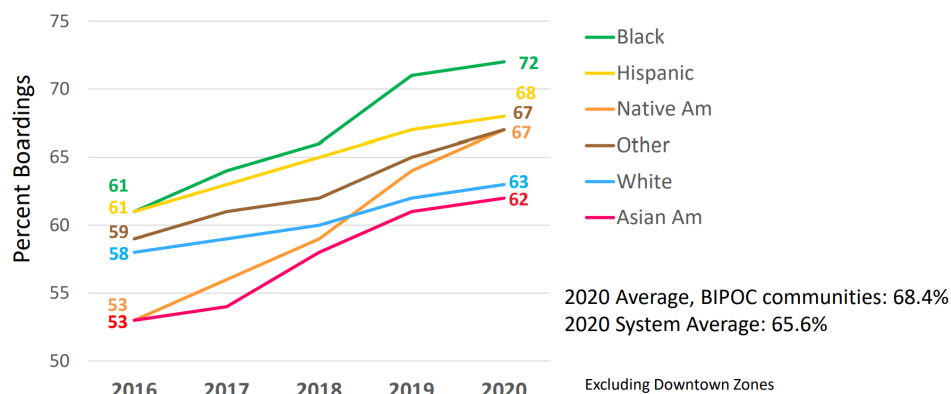


Figure 7: Improvements in sheltered boardings (Source: [Metro Transit](#))



Figure 8: Bus stop shelter in downtown Saint Paul (Source [Metro Transit](#))

**This case models how a city like New Orleans can install shelters in a strategic, but equitable manner to ensure fair distribution, especially in places that need them most.**

#### IV. Recommendations

A common thread uniting each of these cases is that the transit agency in each city adopted a serious and strategic approach to bus stop shelters. They began treating shelters as a priority, not just an afterthought to add when convenient.

Beyond this, the cases also reveal several important elements to consider for transit agencies seeking to increase and improve bus stop shelters. Five key recommendations are:

1. Clear and logical rules and protocols for creating and managing bus stop shelters

Shelters should not be installed in a haphazard manner. There must be a rhyme and reason to the process to ensure efficiency as well as equity in decision-making. These rules should also be publicly available to increase transparency and help the public understand how decisions are made and what they can do to request a new shelter or

changes to an existing one. In terms of prioritizing stops, all agencies included in this report prioritize stops with the highest boardings, although the minimum thresholds can vary. This approach means that even with a relatively low percentage of sheltered stops, an agency can ensure that most riders are protected. For example, in San Antonio, although 34% of stops have shelters, around 95% of riders start their trips from sheltered stops. However, the agencies in this report also incorporate other criteria to ensure equity and make sure that shelters are available for riders who need them most. In terms of documentation, there are a variety of approaches. Salt Lake City shelter rules are included in UTA's [Bus Stop Master Plan](#). Similarly, Portland has comprehensive [Bus Stop Guidelines](#). On the other hand, Minneapolis-Saint Paul has "[Shelter Placement Guidelines](#)" — a brief, four-page document that includes pertinent information about how Metro Transit approaches bus shelter installation and management.

## 2.) Dedicated resources for bus stop shelters

Installing and managing bus stop shelters is neither simple nor inexpensive. The agencies in this report have each been able to secure funds for their shelters over an extended period. The exact sources of funds can vary. For example, Salt Lake City originally ramped up its bus stop shelter efforts thanks to a 2015 voter-approved local sales tax. Today UTA relies on other taxes as well as contributions and partnerships with the city government. Oklahoma City uses a combination of sales tax, local funds, grants, and advertising revenue to fund its shelters. San Antonio, for its part, was able to redirect funds towards shelters after another infrastructure project was canceled.

In addition to purchasing materials to build and repair shelters, however, it is important to invest in human resources as well. Several agencies from this report have formed teams of professionals to oversee the implementation and maintenance of shelters. The size and composition of these teams can vary depending on the context, but if they are guided by clear directives and empowered with resources, such a team can substantially improve the status of shelters within a transit system.

## 3.) Transparency and open data

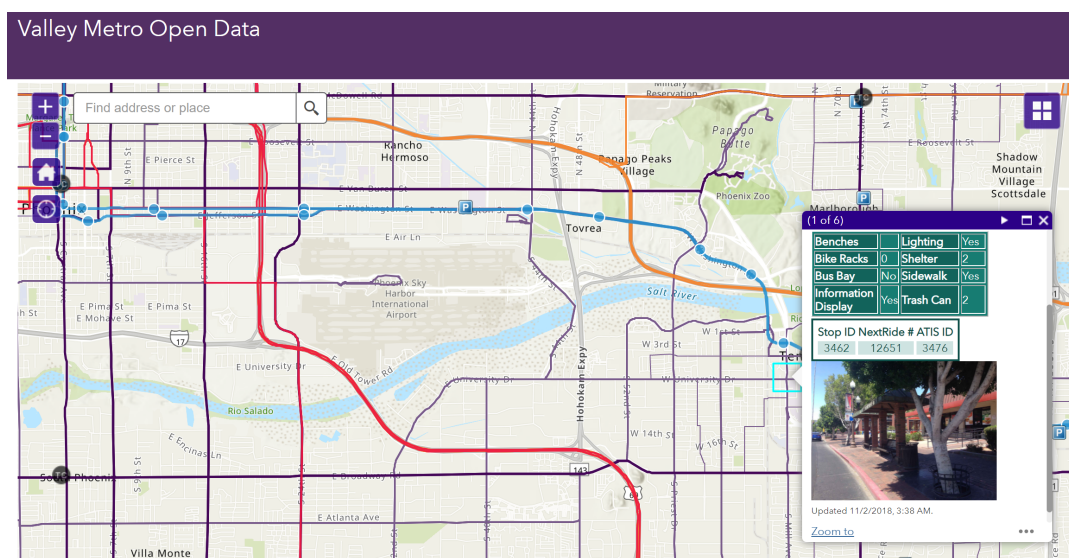
Transit agencies create and manage tons of data and as the technological capabilities of the public increase with computers and smartphones, agencies are finding new

ways of making data accessible to the public.<sup>5</sup> Increasing data transparency provides numerous benefits for transit agencies including efficiency and increased public trust as well as for transit riders such as helping them plan their trips.<sup>6</sup>

Information about bus stop shelters should be available and accessible for anyone who wants to see it, whether they are researchers and developers seeking large datasets or a typical rider who wants to know which stops in their area have shelters. There are many ways an agency can improve access to data about shelters including open data available online, user-friendly maps showing which stops are sheltered, and where new shelters are planned. Agencies can also consider adding accessibility and shelter information to their web-based applications.

Several of the agencies included in this report are making strides towards increased data access. Some pointed out benefits such as reducing requests for data. While one agency simply stated that “if we are going to do something related to shelters, we need to be able to show the public how and why we are doing it.”

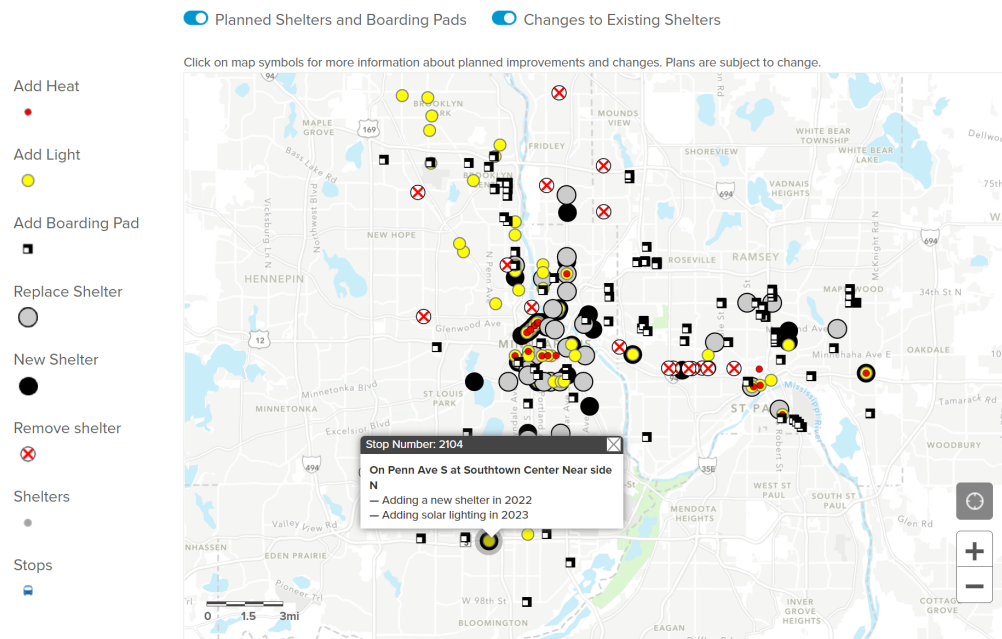
Phoenix Valley Metro is working to include data about stops on its [Open Data Portal](#). This user-friendly site includes a number of relevant datasets as well as maps of the service area which users can view via a web browser.



<sup>5</sup> Francisca M. Rojas, “Transit Transparency: Effective Disclosure through Open Data,” *Ash Center for Democratic Governance and Innovation*, 2012.

<sup>6</sup> American Public Transportation Association, “Public Transportation Embracing Open Data,” 2015.

Another example comes from Minneapolis-Saint Paul. To inform the public about shelter additions, removals, and modifications, [Metro Transit](#) includes an interactive map as seen in the following image.



#### 4.) Participation

Shelters should not simply appear or disappear overnight. Engaging the community can help agencies ensure that shelters are placed where they are needed most, and also reduce conflicts or resistance. The surrounding communities (and anyone else who is interested) should be able to find information and give input about shelters. There should be clear procedures for riders to request new bus shelters or maintenance and report issues. A more thorough approach to public participation would be even better. In Minneapolis-Saint Paul, Metro Transit conducted extensive [community engagement](#) along with nonprofit organizations to understand the needs of riders and to empower communities to lead bus stop improvements.

#### 5.) Maintain and improve shelters

Designing and installing shelters is an important first step, but agencies' responsibilities do not end there. Managing, maintaining, and improving shelters is also crucial.

Agencies should ensure that shelters are regularly cleaned and inspected for damage. They should also think about improvements that can optimize the shelters. Once San Antonio achieved their targets for installing bus stop shelters, they shifted its focus to maintaining and improving shelters with amenities like lighting. Portland is adding e-paper readers to provide relevant real-time service information. And Metro Transit in Minneapolis-Saint Paul has been adding heating as well as lighting to its shelters. Essentially, agencies need to think about how to advance from just having shelters to having great shelters!

## About RIDE

Ride New Orleans is an independent nonprofit 501(c)3 organization. We envision a region in which taking transit enables full access to jobs, education, health care, and other needs that ensure the equitable, thriving community that all residents deserve. Our mission is to win world-class and equitable public transportation that works for all residents across the New Orleans region. Visit [rideneworleans.org](http://rideneworleans.org) for more information. For questions or comments about the report, contact Dustin Robertson—[Dustin@rideneworleans.org](mailto:Dustin@rideneworleans.org).

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